

AMENDMENTS TO THE DRAWINGS

Figures 1 and 2 are now designated as “Related Art”

Attachment: One (1) Replacement Sheet

REMARKS

Claims 1-5 are all the claims pending in the application. By this Amendment, Applicant editorially amends claims 1-5. The amendments to claims 1-5 were made for reasons of precision of language and consistency, and do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents. By this Amendment, Applicant adds claims 6-13, which are clearly supported throughout the specification.

I. Summary of the Office Action

The Examiner objects to the specification, drawings, and claims 1-3 and 5 for minor informalities. In addition, the Examiner rejected claims 1 and 3 under 35 U.S.C. § 112, second paragraph and claims 1-5 under 35 U.S.C. § 102(e).

II. Formal Matters

Applicant thanks the Examiner for acknowledging Applicant's claim to foreign priority and for indicating receipt of the certified copy of the priority document. Applicant also thanks the Examiner for returning the initialed form PTO/SB/08 submitted with the Information Disclosure Statement filed on January 21, 2003.

III. Objections to the Drawings

The Examiner has objected to the drawings because figures 1 and 2 are not labeled prior art. The drawings have been amended to remedy this minor informality. A Replacement Drawing Sheet labeling figures 1 and 2 "related art" is accompanying this response. As a result, the Examiner is respectfully requested to acknowledge receipt and indicate approval of the drawing corrections in the next patent office communication.

IV. Objections to the Specification

The Examiner objected to the specification as failing to provide proper headings.

Applicant herein amends the specification to include the required headings. In view of these amendments to the specification, Applicant respectfully requests the Examiner to withdraw these objections.

V. Objections to the Claims

Claims 1-3 and 5 are objected to because of minor informalities. Applicant thanks the Examiner for pointing out these informalities and respectfully requests that the Examiner withdraw these objections in view of the self-explanatory claim amendments being made herein.

VI. Claim Rejections under 35 U.S.C. § 112

The Examiner rejected claims 1 and 3 under 35 U.S.C. § 112, second paragraph.

Applicant thanks the Examiner for pointing out, with particularity, the aspects of the claim thought to be indefinite. Applicant respectfully requests the Examiner to withdraw this rejection in view of the self-explanatory claim amendments being made herein. With regard to lines 5-9 of claim 3, the claim amendments have been made only to clarify the scope of the claim.

VII. Claim Rejections under 35 U.S.C. § 102(e)

Claims 1-5 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,721,282 to Motley (hereinafter “Motley”). After careful review of Motley, Applicant respectfully traverses the Examiner’s rejection.

Independent claim 1 *inter alia* recites: “formatting means for subdividing and inserting at least one section of the IP datagrams in the time slots corresponding to the available bandwidth.” In an exemplary embodiment, the formatting means subdivides and inserts IP datagrams into open time slots of frames containing mobile telecommunications data. The formatting means

allows voice or other data coming from mobile phones to be sent in the same frame as data from remote devices with internet access. The foregoing remarks relate to the invention in a general sense, and the remarks are not necessarily limiting of any claims and are intended only to help the Examiner better understand the distinguishing aspects of the claim mentioned above.

The Examiner alleges that Motley discloses the above claimed feature of claim 1 in column 2, lines 59-64. However, Applicant respectfully submits that Motley does not disclose the claimed “formatting means” in the sections cited by the Examiner or anywhere else. Applicant respectfully submits that the cited section of Motley recites the following: “Remote site 31 can be any personal computing device, such as a personal computer (PC) or terminal accessing a network, such as the Internet or frame relay cloud). In the case of Internet access to apparatus 1, in one embodiment of the invention router 9 is a part of the Internet service provider network.” (col. 2, lines 59-64, referring to figure 1). That is, Motley discloses multiplexing data from a remote device on the same channel as telecommunications data using a network manager to manage queues of data. However, the network manager disclosed in Motley does not multiplex different types of data within the same frame on said channel.

In column 5, lines 1-3, Motley discusses insertion of data “into parameter blocks as channel space becomes available.” Motley further discloses that “the insertion of FAX/DATA into outgoing frame relay packets occurs in small eight byte data blocks every 25 msec unless there is low voice traffic in which case the data blocks can be up to 1600 bytes every 25 msec.” (col. 5, lines 5-9) Thus, in Motley, it is clear that data from remote devices accessing a network are inserted into channels in frames (packets) separate from the frames transmitting telecommunications data. Motley’s disclosure is deficient in disclosing a means for inserting data such as IP datagrams into the open time slots of frames containing telecommunications data.

Therefore, Motley fails to disclose “formatting means for subdividing and inserting at least one section of the IP datagrams in the time slots corresponding to the available bandwidth,” as set forth in claim 1, which lacks inserting a section of IP datagram in a frame transmitting telecommunications data. In view of the foregoing, Applicant respectfully requests the Examiner to withdraw the rejection of claim 1. Claims 2, 3, and 5 are patentable at least by virtue of their dependency on claim 1.

Dependent claim 3 is also patentable for further distinguishing features. Claim 3 recites: “analyzer means for analyzing at least one channel in an analysis window of current data frames to determine whether the channel is active or static, an active state being assigned to the channel if a comparison between the N frames representing a reference pattern and the corresponding N frames of the analysis window shows a variation in frame content for at least one of the frames, a static state being assigned to the channel if all the N reference frames are the same as the corresponding current data frames, where N is an integer greater than or equal to 1.” Claim 3 also discloses means for extraction, location and grouping of the data content contained within the analysis window.

In an exemplary embodiment, the analyzer means will detect active channels, the extraction means will extract the data from these channels, and the location and grouping means will ensure that the data is routed to the correct place upon arrival at the receiving end. The combination of these means saves bandwidth by not transmitting static channels, but instead providing location and grouping information in order to place and reconstitute both active and static channels. The foregoing remarks relate to the invention in a general sense, and the remarks are not necessarily limiting of any claims and are intended only to help the Examiner better understand the distinguishing aspects of claim 3 mentioned above.

Motley discloses the use of flag data to indicate a silent channel, but silence is associated with a completely unused channel (hook-down), and not a channel that is merely non-active (col. 12, line 18). In the operation described by Motley, no data is sent when the flag data shows a silent channel (col. 13, lines 40-43). It appears that in Motley, data is sent as long as the channel is in use. Therefore, Motley does not disclose analysis of all channels in use to determine whether each one is active, and to momentarily cease transmission of static (non-active) channels until they become active again.

Therefore, Motley fails to disclose “analyzer means for analyzing at least one channel in an analysis window of current data frames to determine whether the channel is active or static, an active state being assigned to the channel if a comparison between the N frames representing a reference pattern and the corresponding N frames of the analysis window shows a variation in frame content for at least one of the frames, a static state being assigned to the channel if all the N reference frames are the same as the corresponding current data frames, where N is an integer greater than or equal to 1,” as set forth in claim 3, which lacks analyzing channels being used to determine whether each one is active or is in a static state so that transmission is momentarily ceased. In view of the foregoing, Applicant respectfully requests the Examiner to withdraw rejection of claim 3.

Independent claim 4 recites: “a demultiplexing device adapted to demultiplex a compressed data block comprising a compressed block and at least one IP datagram section, wherein the demultiplexing device comprises: deformatting means for extracting the IP datagram sections and concatenating the IP datagram sections in order to direct the IP datagram sections to the Ethernet network; and data decompression means for reconstituting active and static channels from the compressed data block.” In an exemplary embodiment, the demultiplexing device

receives the data transmitted by a multiplexing device, extracts the IP datagram sections transferred either in whole or in part, and concatenates the stream(s) of IP datagrams. The foregoing remarks relate to the invention in a general sense, and the remarks are not necessarily limiting of any claims and are intended only to help the Examiner better understand the distinguishing aspects of the claim mentioned above.

The Examiner alleges that Motley discloses the claimed demultiplexing device in column 2, lines 46-49. Applicant respectfully submits that the cited section recites: “high-speed router 21 at the termination point converts the packet data back to Ethernet format 25 for decompression by terminating telecommunications apparatus 23.” Motley discloses a type of demultiplexing device capable of decompressing data. However, there is no disclosure of a deformatting means employed before decompression. That is, Motley does not disclose or suggest extracting the IP datagram sections from a frame and concatenating the IP datagram sections in order to direct the IP datagram sections to the Ethernet network.

Therefore, Motley fails to disclose “a demultiplexing device adapted to demultiplex a compressed data block comprising a compressed block and at least one IP datagram section, wherein the demultiplexing device comprises: deformatting means for extracting the IP datagram sections and concatenating the IP datagram sections in order to direct the IP datagram sections to the Ethernet network; and data decompression means for reconstituting active and static channels from the compressed data block,” as set forth in claim 4, which lacks extracting section of IP datagram from a frame. In view of the foregoing, Applicant respectfully requests Examiner to withdraw rejection of claim 4.

VII. New Claims

In order to provide more varied protection, Applicant adds claims 6-13, which are patentable by virtue of their dependency and for additional features set forth therein.

VIII. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby respectfully solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Nataliya Dvorson/
Nataliya Dvorson
Registration No. 56,616

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: August 21, 2007